IN THE CLAIMS:

1-41. (Cancelled)

42. (NEW) A method for encoding of a n-channel digital audio signal, where n is an integer larger than 1, comprising the steps of:

encoding each channel signals of the n-channel digital audio signal so as to obtain an encoded channel signal for each of said channel signals in response to probability values for each of said channel signals,

carrying out a prediction filtering on each of said channel signals in response to a set of prediction filter coefficients for each of said channel signals so as to obtain a prediction filtered channel signal from each of said channel signals,

generating a set of prediction filter coefficients for each of said channel signals,

generating probability values for each of said channel signals in response to a probability table for each of said channel signals and the corresponding prediction filtered channel signal for each of said channel signals,

generating the probability tables for each of said channel signals,

generating first mapping information and a plurality of m sets of prediction filter coefficients, where m is an integer for which holds $1 \leq m \leq n$, said first mapping information and m sets of prediction filter coefficients being representative of said n sets of prediction filter coefficients for said n channels, and for generating second mapping information and a plurality of p probability tables, where p is an integer for which holds $1 \leq p \leq n$, said second mapping information and p probability tables being representative of said n probability tables for said n channels,

combining said first and second mapping information signals, said plurality of m sets of prediction filter coefficients and said plurality of p probability tables into a composite information signal.

43. (NEW) A method for encoding a n-channel digital audio signal, where n is an integer larger than 1, comprising the steps of:

encoding time equivalent signal blocks of each channel signals of the n-channel digital audio signal by dividing the time equivalent signal blocks into M segments, and encoding the signal portions of the channel signals in all M segments in said time equivalent signal blocks, so as to obtain an encoded signal portion for each of said signal portions in said M segments in response to probability values for each of said signal portions, where $M = \sum_{i=0}^{i=n-1} sp_i$ and sp_i is the number of segments in the time equivalent signal block of the i-th channel signal,

generating probability values for each of said M signal portions in response to a probability table for each of said M signal portions,

generating the probability tables for each of said M signal portions,

converting the information about the length and locations of the M segments in the n channel signals into first segment information, and for generating first mapping information and a plurality of m probability tables, where m is an integer for which holds $1 \leq m \leq M$, said first mapping information and said m probability tables being representative for said M probability tables,

combining said time equivalent signal blocks, said first segment information, said first mapping information signal and said plurality of m probability tables into a composite information signal.

44. (NEW) The method as claimed in claim 43, further comprising the steps of:

prediction time equivalent signal blocks for each of said channel signals by dividing the time equivalent signal blocks into segments, and prediction filtering the signal portions of the channel signals in all P segments in said time equivalent signal blocks, so as to obtain a prediction filtered signal portion for each of said P signal portions in response to a set of prediction filter coefficients for each of said signal portions, where P = $\sum_{i=0}^{i=n-1} sf_i$ and sf_i is the number of segments in the time equivalent signal block of the i-th channel signal,

generating a set of prediction filter coefficients for each of said P signal portions,

converting the information about the length and locations of the P segments in the n channel signals into second segment information, and for generating second mapping information and a plurality of p sets of prediction filter coefficients, where p is an integer for which holds $1 \le p \le P$, said second mapping information and said p sets of prediction filter coefficients being representative of said P sets of prediction filter coefficients,

combining said second segment information, said second mapping information signal and said plurality of p sets of prediction filter coefficients into said composite information signal.

45. (NEW) The method as claimed in claim 44, further comprising generating a first indicator word (w_1) of a first value, indicating that the segmentation of the time equivalent signal blocks for the probability tables is different from the segmentation of the time equivalent signal blocks for the sets of

prediction filter coefficients and of a second value indicating that the segmentation of the time equivalent signal blocks for the probability tables is the same as for the prediction filter coefficients, and for supplying only one of the first or the second segment information in the latter case, the combining means being adapted to combine the first indicator word and the only one of the first segment information or the second segment information into said composite information signal, in the case that the first indicator word has the second value.

46. (NEW) The method of Claim 45, wherein said only one of the first or second segment information is generated if the first indicator word has the second value.

47. (NEW) The method as claimed in claim 44, further comprising generating a second indicator word (w_2) of a third value indicating that the time equivalent signal blocks all have the same segmentation for the sets of prediction filter coefficients and is adapted to generate a second indicator word of a fourth value indicating that the time equivalent signal blocks have each a different segmentation for the sets of prediction filter coefficients, that the converting means is adapted to generate second segment information for only one time equivalent signal block in the case that the second indicator word has the third value and is adapted to generate second segment information for each of the time equivalent signal blocks in the case that the second indicator word has the fourth value, and that the combining means is further adapted to combine the second indicator word into said composite information signal.

48. (NEW) The method as claimed in claim 43, further comprising generating a third indicator word (w_3) of a fifth value indicating that the time equivalent signal blocks all have the same

segmentation for the probability tables and is adapted to generate a third indicator word of a sixth value indicating that the time equivalent signal blocks have each a different segmentation for the probability tables, that the converting means is adapted to generate first segment information for only one time equivalent signal block in the case that the third indicator word has the fifth value and is adapted to generate first segment information for each of the time equivalent signal blocks in the case that the third indicator word has the sixth value, and that the combining means is further adapted to combine the third indicator word into said composite information signal.

49 (NEW) The method as claimed in claim 44, further comprising generating a fourth indicator word (w_4) of a seventh value, indicating that the mapping information for the probability tables is different from the mapping information for the prediction filter coefficients and of an eighth value indicating that the mapping information for the probability tables is the same as for the prediction filter coefficients, and for supplying the first or the second mapping information only in the latter case, the combining means being adapted to combine the fourth indicator word and the first mapping information or the second mapping information only into said composite information signal, in the case that the fourth indicator word has the eighth value.

50. (NEW) The method as claimed in claim 44, further comprising generating a fifth indicator word (w_5) of a ninth value indicating that the time equivalent signal blocks all have the same mapping information for the sets of prediction filter coefficients and is adapted to generate a fifth indicator word of a tenth value indicating that the time equivalent signal blocks have each a different mapping information for the sets of prediction filter coefficients, that the converting means is adapted to generate

second mapping information for only one time equivalent signal block in the case that the fifth indicator word has the ninth value and is adapted to generate second mapping information for each of the time equivalent signal blocks in the case that the fifth indicator word has the tenth value, and that the combining means is further adapted to combine the fifth indicator word into said composite information signal.

51. (NEW) The method as claimed in claim 43, further comprising converting information concerning the number of segments in a time equivalent signal block of a channel signal into a number code, the combining means being further adapted to combine the number code into said composite information signal.

52. (NEW) The method as claimed in claim 51, wherein said number code satisfies the following table:

S	code(s)
1	1
2	01
3	001
4	0001
s	$0^{(s-1)}1$

where S is the number of segments in a time equivalent signal block of a channel signal.

53. (NEW) The method as claimed in claim 44, wherein the first set of prediction filter coefficients is allocated to the first of said P segments, said second mapping information being devoid of

mapping information for mapping said first set of prediction filter coefficients to said first segment of said P segments,
(a) the first bit in said second mapping information indicating whether the set of prediction filter coefficients for the second segment is the first set of prediction filter coefficients or a second set of prediction filter coefficients,
(b1) if the first set of prediction filter coefficients is also the set of filter coefficients for the second segment, then the second bit in said second mapping information indicating whether the set of prediction filter coefficients for the third segment is the first set of prediction filter coefficients or the second set of prediction filter coefficients,
(b2) if the second set of prediction filter coefficients is the set of filter coefficients for the second segment, then the next two bits in the second mapping information indicating whether the set of prediction filter coefficients for the third segment is the first, the second or the third set of prediction filter coefficients,
(c1) if the first set of prediction filter coefficients is the set of filter coefficients for the second and third segment, then the third bit of said second mapping information indicates whether the set of prediction filter coefficients for the fourth segment is the first or the second set of prediction filter coefficients,
(c2) if the first set of prediction filter coefficients is the set of filter coefficients for the second segment and the second set of prediction filter coefficients is the set of filter coefficients for the third segment, then the third and fourth bit in said second mapping information indicating whether the set of prediction filter coefficients for the fourth segment is the first, the second or the third set of prediction filter coefficients,
(c3) if the second set of prediction filter coefficients is the set of filter coefficients for the second segment, and the first

or the second set of filter coefficients is the set of filter coefficients for the third segment, then the fourth and fifth bit in the second mapping information indicating whether the set of prediction filter coefficients for the fourth segment is the first, second or the third set of prediction filter coefficients,
(c4) if the second set of prediction filter coefficients is the set of filter coefficients for the second segment, and the third set of filter coefficients is the set of prediction filter coefficients for the third segment, then the fourth and fifth bit in the second mapping information indicating whether the set of prediction filter coefficients for the fourth segment is the first, second, third or the fourth set of filter coefficients.

54. (NEW) The method as claimed in claim 43, wherein the first probability table is allocated to the first of said M segments, said first mapping information being devoid of mapping information for mapping said first probability table to said first segment of said M segments,
(a) the first bit in said first mapping information indicating whether the probability table for the second segment is the first probability table or a second probability table,
(b1) if the first probability table is also the probability table for the second segment, then the second bit in said first mapping information indicating whether the probability table for the third segment is the first probability table or the second probability table,
(b2) if the second probability table is the probability table for the second segment, then the next two bits in the first mapping information indicating whether the probability table for the third segment is the first, the second or the third probability table,
(c1) if the first probability table is the probability table for the second and third segment, then the third bit of said first mapping information indicates whether the probability table for

the fourth segment is the first or the second probability table,
(c2) if the first probability table is the probability table for the second segment and the second probability table is the probability table for the third segment, then the third and fourth bit in said first mapping information indicating whether the probability table for the fourth segment is the first, the second or the third probability table,
(c3) if the second probability table is the probability table for the second segment, and the first or the second probability table is the probability table for the third segment, then the fourth and fifth bit in the first mapping information indicating whether the probability table for the fourth segment is the first, second or the third probability table,
(c4) if the second probability table is the probability table for the second segment, and the third probability table is the probability table for the third segment, then the fourth and fifth bit in the first mapping information indicating whether the probability table or the fourth segment is the first, second, third or the fourth probability table.

55. (NEW) A method for decoding a composite information signal comprising encoded data of a n-channel digital audio signal and side information having a relationship with the encoded data, comprising the steps of:

retrieving said encoded data and side information from said composite information signal,

decoding the encoded data so as to obtain n channel signals in response to a set of probability values for each of said channel signals,

carrying out a prediction filtering on each of said channel signals in response to n sets of prediction filter coefficients, one set for each of said channel signals, so as to obtain a prediction filtered channel signal from each of said channel

signals, said sets of prediction filter coefficients being derived from said side information,

generating n sets of probability values, one for each of the channel signals in response to a corresponding prediction filtered channel signal and corresponding probability table, said n probability tables, one for each of the channel signals, being derived from said side information,

retrieving first and second mapping information, a plurality of m sets of prediction filter coefficients and a plurality of p probability tables from said side information,

reconverting said first mapping information and said m sets of prediction filter coefficients into n sets of prediction filter coefficients, one set for each of said channel signals, where m is an integer for which holds $1 \le m \le n$, and for reconverting said second mapping information and said p probability tables into n probability tables, one set for each of said channel signals, where p is an integer for which holds $1 \le p \le n$.

56. (NEW) A method for decoding a composite information signal comprising encoded data of a n-channel digital audio signal and side information having a relationship with the encoded data, where n is an integer larger than 1, comprising the steps of:

retrieving said encoded data and side information from said composite information signal,

decoding said encoded data into M signal portions in response to corresponding sets of probability values, one for each of said M signal portions, where $M = \sum_{i=0}^{i=n-1} sp_i$ and sp_i is the number of segments in the time equivalent signal block of the i-th channel signal,

generating M sets of probability values, one for each of the M signal portions in response to a corresponding probability

table, said M probability tables, one for each of the signal portions, being derived from said side information,

retrieving first segment information and first mapping information and a plurality of m probability tables from said side information, where m is an integer for which holds $1 \leq m \leq M$,

reconverting said first mapping information and m probability tables into M probability tables, one for each of said signal portions, and for reconverting said first segment information into information about the length and locations of the M segments in the n channel signals so as to obtain time equivalent signal blocks in said n channel signals.

57. (NEW) The method as claimed in claim 57, further comprising outputting the time equivalent signal blocks of said n channel signals.

58. (NEW) The method as claimed in claim 56, further comprising the steps of:

carrying out a prediction filtering on said time equivalent signal blocks of each of said channel signals by dividing the time equivalent signal blocks into segments, and prediction filtering the signal portions of the channel signals in all P segments in said time equivalent signal blocks and for all n channel signals, so as to obtain a prediction filtered signal portion for each of said P signal portions in response to a set of prediction filter coefficients for each of said signal portions, where $P = \sum_{i=0}^{i=n-1} sf_i$ and sf_i is the number of segments in the time equivalent signal block of the i-th channel signal,

retrieving second segment information, second mapping information and p sets of prediction filter coefficients from said side information, where p is an integer for which holds $1 \leq p \leq P$,

reconverting the second segment information into information about the length and locations of the P segments in the n channel signals and for reconverting the p sets of prediction filter coefficients into P sets of prediction filter coefficients, one for each of said P signal portions, using said second mapping information.

59. (NEW) Apparatus as claimed in claim 58, further comprising retrieving a first indicator word (w_1) from said side information, said first indicator word, when being of a first value, indicating that the segmentation of the time equivalent signal blocks for the probability tables is different from the segmentation of the time equivalent signal blocks for the prediction filter coefficients, and when being of a second value, indicating that the segmentation of the time equivalent signal blocks for the probability tables is the same as for the prediction filter coefficients, and for retrieving one segment information only from the side information in the latter case, the reconverting means further being adapted to copy the said segment information so as to obtain the first and second segment information, in the latter case.

60. (NEW) The method as claimed in claim 58, further comprising retrieving a second indicator word (w_2) from said side information, said second indicator word, when being of a third value, indicating that the time equivalent signal blocks all have the same segmentation for the prediction filter coefficients and, when being of a fourth value, indicating that the time equivalent signal blocks have each a different segmentation for the prediction filter coefficients, the retrieval means further being adapted to retrieve second segment information for only one time equivalent signal block from the side information in the case that the second indicator word has the third value and is adapted to retrieve second segment information for each of the time

equivalent signal blocks in the case that the second indicator word has the fourth value, the reconverting means being further adapted to copy the second segment information n-1 times so as to obtain the P segments of the time equivalent signal blocks of all n channel signals, in the case that the second indicator word has the third value.

61. (NEW) The method as claimed in claim 58, wherein the retrieval means is adapted to retrieve a third indicator word (w_3) from said side information, said third indicator word, when being of a fifth value, indicating that the time equivalent signal blocks all have the same segmentation for the probability tables, and when being of a sixth value, indicating that the time equivalent signal blocks have each a different segmentation for the probability tables, that the retrieval means is further adapted to retrieve first segment information for only one time equivalent signal block in the case that the third indicator word has the fifth value and is adapted to retrieve first segment information for each of the time equivalent signal blocks in the case that the third indicator word has the sixth value, and that the reconverting means is further adapted to copy the first segment information for said one time equivalent signal block n-1 times so as to obtain the M segments of the time equivalent signal blocks of all the n channel signals, in the case that the third indicator word has the fifth value.

62. (NEW) The method as claimed in claim 58, further comprising retrieving a fourth indicator word (w_4) from said side information, said fourth indicator word being of a seventh value, indicating that the mapping information for the probability tables is different from the mapping information for the sets of prediction filter coefficients and, when being of an eighth value, indicating that the mapping information for the probability tables

is the same as for the prediction filter coefficients, that the retrieval means is further adapted to retrieve only one mapping information from the side information in the latter case, the reconverting means being further adapted to copy the mapping information retrieved in the case that the fourth indicator word has the eighth value.

63. (NEW) The method as claimed in claim 58, further comprising retrieving a fifth indicator word (w_5) from said side information, said fifth indicator word, when being of a ninth value, indicating that the time equivalent signal blocks all have the same mapping information for the prediction filter coefficients and, when being of a tenth value, indicating that the time equivalent signal blocks have each a different mapping information for the prediction filter coefficients, that the retrieval means are further adapted to retrieve second mapping information for only one time equivalent signal block in the case that the fifth indicator word has the ninth value and is adapted to retrieve second mapping information for each of the time equivalent signal blocks in the case that the fifth indicator word has the tenth value.

64. (NEW) The method as claimed in claim 56, further comprising converting information to retrieve a number code for a time equivalent signal block from said side information, said number code representing the number of segments in said time equivalent signal block.

65. (NEW) The method as claimed in claim 64, wherein said number code satisfies the following table:

S	code(*S*)
1	1
2	01
3	001
4	0001
s	$0^{(s-1)}1$

where S is the number of segments in a time equivalent signal block of a channel signal.

66. (NEW) A record carrier, comprising:

a composite information signal generated by the following:

encoding channel signals of n-channel digital audio signal so as to obtain an encoded channel signal for each of said channel signals in response to probability values for each of said channel signals, where n is an integer larger than 1,

carrying out a prediction filtering on each of said channel signals in response to a set of prediction filter coefficients for each of said channel signals so as to obtain a prediction filtered channel signal from each of said channel signals,

generating a set of prediction filter coefficients for each of said channel signals,

generating probability values for each of said channel signals in response to a probability table for each of said channel signals and the corresponding prediction filtered channel signal for each of said channel signals,

generating the probability tables for each of said channel signals,

generating first mapping information and a plurality of m sets of prediction filter coefficients, where m is an integer for

which holds $1 \leq m \leq n$, said first mapping information and m sets of prediction filter coefficients being representative of said n sets of prediction filter coefficients for said n channels, and for generating second mapping information and a plurality of p probability tables, where p is an integer for which holds $1 \leq p \leq n$, said second mapping information and p probability tables being representative of said n probability tables for said n channels,

combining said first and second mapping information signals, said plurality of m sets of prediction filter coefficients and said plurality of p probability tables into the composite information signal.

67. (NEW) A record carrier, comprising:

a composite information signal generated by the following:

encoding time equivalent signal blocks of each channel signals of the n-channel digital audio signal by dividing the time equivalent signal blocks into M segments, where n is an integer larger than 1, and encoding the signal portions of the channel signals in all M segments in said time equivalent signal blocks, so as to obtain an encoded signal portion for each of said signal portions in said M segments in response to probability values for each of said signal portions, where $M = \sum_{i=0}^{i=n-1} sp_i$ and sp_i is the number of segments in the time equivalent signal block of the i-th channel signal,

generating probability values for each of said M signal portions in response to a probability table for each of said M signal portions,

generating the probability tables for each of said M signal portions,

converting the information about the length and locations of the M segments in the n channel signals into first segment

information, and for generating first mapping information and a plurality of m probability tables, where m is an integer for which holds $1 \leq m \leq M$, said first mapping information and said m probability tables being representative for said M probability tables,

combining said time equivalent signal blocks, said first segment information, said first mapping information signal and said plurality of m probability tables into a composite information signal.